

In the Claims

Please amend the claims as follows. Applicants presents a full set of claims showing markups of the claims with insertions and deletions indicated by underlining and strikethrough text, respectively.

1. (Currently amended) A method for administering a therapeutic molecule to a subject, comprising:

providing a hybrid protein comprising the therapeutic molecule and tetanus toxin fragment C, and

administering the hybrid protein by infusion of the hybrid protein into the cerebrospinal fluid, or directly into the brain or spinal cord parenchyma.

2. (Currently amended) The method of claim 1, wherein the therapeutic molecule is a protein or peptide, a nucleic acid molecule, a virus, an antibody or fragment thereof, a lipid, a polysaccharide, an oligonucleotide or a modified or derivatized oligonucleotide, an RNA molecule or a modified or derivatized oligoribonucleotide, a plasmid, cosmid, bacmid or vehicle for the packaging and/or expression of clonal DNA, or a ribozyme.

3. (Original) The method of claim 2, wherein the protein is selected from the group consisting of GDNF, BDNF, LIF, cardiotrophin (CT-1), FGF, HGF, insulin-like growth factors 1 and 2 (IGF-1, IGF-2) and the neurotrophins.

4.-12. (Canceled)

13. (Currently amended) The method of claim 1, wherein the mode of administration is intracerebroventricular administration or intrathecal infusion.

14.-18. (Canceled)

19. (Original) The method of claim 1, wherein the hybrid protein is administered to at least about 10% of brain volume.

20.-33. (Canceled)

34. (Currently amended) The method of claim 1 22, wherein the hybrid protein is administered directly into the brain or spinal cord parenchyma by injection or infusion.

35.-42. (Canceled)

43. (Currently amended) A method for administering a therapeutic molecule to a region of a subject's brain and spinal cord that is not accessible via retrograde transport or transsynaptic transport from motor neurons, comprising:

providing a hybrid protein comprising the therapeutic molecule and tetanus toxin fragment C, and

administering the hybrid protein by infusion of the hybrid protein into the cerebrospinal fluid, or directly into the brain or spinal cord parenchyma.

44. (Currently amended) The method of claim 43, wherein the therapeutic molecule is a protein or peptide, a nucleic acid molecule, a virus, an antibody or fragment thereof, a lipid, a polysaccharide, an oligonucleotide or a modified or derivatized oligonucleotide, an RNA molecule or a modified or derivatized oligoribonucleotide, a plasmid, cosmid, bacmid or vehicle for the packaging and/or expression of clonal DNA, or a ribozyme.

45. (Original) The method of claim 43, wherein the protein is selected from the group consisting of GDNF, BDNF, LIF, cardiotrophin (CT-1), FGF, HGF, insulin-like growth factors 1 and 2 (IGF-1, IGF-2) and the neurotrophins.

46.-54. (Canceled)

55. (Currently amended) The method of claim 43, wherein the mode of administration is intracerebroventricular administration or intrathecal infusion.

56.-60. (Canceled)

61. (Original) The method of claim 43, wherein the hybrid protein is administered to at least about 10% of brain volume.

62.-75. (Canceled)

76. (Currently amended) The method of claim ~~43~~ 64, wherein the hybrid protein is administered directly into the brain or spinal cord parenchyma by injection or infusion.

77.-84. (Canceled)

85. (Currently amended) A method for treating a neurological disorder, comprising:
administering to a subject in need of such treatment an effective amount of a hybrid protein comprising tetanus toxin fragment C and a therapeutic molecule by infusion of the hybrid protein into the cerebrospinal fluid, or directly into the brain or spinal cord parenchyma.

86. (Currently amended) The method of claim 85, wherein the therapeutic molecule is a protein or peptide, a nucleic acid molecule, a virus, an antibody or fragment thereof, a lipid, a polysaccharide, an oligonucleotide or a modified or derivatized oligonucleotide, an RNA molecule or a modified or derivatized oligoribonucleotide, a plasmid, cosmid, bacmid or vehicle for the packaging and/or expression of clonal DNA, or a ribozyme.

87. (Original) The method of claim 85, wherein the protein is selected from the group consisting of GDNF, BDNF, LIF, cardiotrophin (CT-1), FGF, HGF, insulin-like growth factors 1 and 2 (IGF-1, IGF-2) and the neurotrophins.

88.-96. (Canceled)

97. (Currently amended) The method of claim 85, wherein the mode of administration is intracerebroventricular administration or intrathecal infusion.

98.-102. (Canceled)

103. (Currently amended) The method of claim ~~85~~ 4, wherein the hybrid protein is administered to at least about 10% of brain volume.

104.-105. (Canceled)

106. (Original) The method of claim 85, wherein the subject has a neurological disorder selected from the group consisting of cerebrovascular accidents (stroke), amyotrophic lateral sclerosis, Parkinson's disease, Huntington's disease, Alzheimer's disease, multiple sclerosis, olivopontocerebellar atrophy, multiple system atrophy, progressive supranuclear palsy, diffuse Lewy body disease, corticodentatonigral degeneration, progressive familial myoclonic epilepsy, striatonigral degeneration, torsion dystonia, familial tremor, Down's Syndrome, Gilles de la Tourette syndrome, Hallervorden Spatz disease, peripheral neuropathies, dementia pugilistica, AIDS dementia, age-elated dementia, age-associated memory impairment, amyloidosis related neurodegenerative diseases, traumatic brain and spinal cord injury, cerebral edema, schizophrenia, peripheral nerve damage, spinal cord injury, and Wernicke Korsakoff's related dementia.

107.-118. (Canceled)

119. (Currently amended) The method of claim 85 ~~107~~, wherein the hybrid protein is administered directly into the brain or spinal cord parenchyma by injection or infusion.

120.-128. (Canceled)